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Dibley Marine

Page 1

Issue 4, December 2011

Inside this issue:

Pioneer 39 - Canal Boating pg. 1 & 2 America's Cup 12-meter:

- 'Gretel-2' Refit pg. 3 & 4

From The Design Office

Design Updates

- DM3-RM Marbleheads

- DM2-IOM One Metres pg. 5

pg. 5

Inside our Next Issue:

Racing Updates

Class 40 (2012)

Minerva Tender Range

IOM updates

Latest from the Drawing Board.



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PIONEER 39 - CANAL BOATING



A couple of years ago we did some design work for a client on the Caspian Sea. It was for a 32-meter luxury cruising launch that could cruise on the Volga River and the offshore strip of the Northern Caspian Sea. The project never went further than the preliminaries as the clients could not achieve the required funding, but it did lead into quite a few enquiries on Canal Boating in Europe and on the Inland Waterways of the USA.

One of our current projects is the Pioneer 39 for the NZ based company Mitchells Marine. Their brief was that it not only had to be offshore capable, but also sized for Canal Boating in Europe. This is a very popular form of holidaying for boaters, with Canals spread throughout France, Amsterdam, Germany, Ireland, Russia and the United Kingdom. There are also Canals and inland waterways throughout Canada and the USA, so we had to make sure that the Pioneer 39 was able to cruise the Canals with no sacrifice to the general parameters that allow her to be a great sea kindly vessel when offshore.

In Europe there are mainly two sizes. The canal systems in England start on the river Thames in Oxford and extensively winds its way north. These waterways are very popular with the narrow boat brigade, which are the only craft that can navigate these tight canals. The boats can be up to 21-meters long but only 2.1-meters wide. These are very slim hulls for their length and the limiting factor of beam does not work with the offshore stability required for the Pioneer 39. For England, the Pioneer 39 will be limited to river cruising on the larger rivers such



as the Thames, but in total comfort throughout the journey.

The European standard is the more popular and common one. The maximum overall beam allowed is 5.0 meters and with that we are talking of the actual gap in the canal locks. The length is limited to 38.0-meters but that again is the maximum. Draft is limited to 1.8-meters but most try to get below 1.3-meters, which, for example, is required in some of the beautiful lake areas around Loosdrecht and the massive network of peat bog mines throughout the north.

Basing our design on making it work within the European canal system, we had to come up with the base parameters that are required to travel through these networks. We also had to work through the reasons this design would appeal as opposed to other options out there. To start the process, most canal boaters have to go under bridges if they want to get far. This requires a maximum height above the waterline that will give them clearance. This height is the vessels 'Air Draft'. In principal 2.6-meters gets

SUNCE VERSION OF LODGS

you under the lowest bridge in Narbonne, south of France, but the real issue is not the centerline height, but the outer beam height due to the curve of the older stone bridges that were built back in the Roman days. If we use a constant curve, we find that with an Air draft at centerline of 3.2-meters, the outer extreme height of the vessel can drop down to the 2.3 to 2.5 meter range, and this will get you under any bridge on the Continent. This also means that we can go anywhere the bridges are too old to get under due to their lack of lifting. Mainly the only lifting bridges are in the north areas such as the Northern German Plains, Belgium and Denmark, where there are no hills. Everywhere else, they are mainly fixed. (continued—page 2)

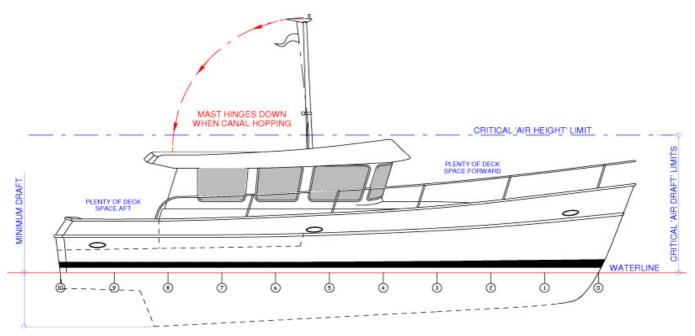


Issue 4, December 2011

Page 2

PIONEER 39 - CANAL BOATING (continued)

New boats tend to be traditional in design and mostly built from a freight point of view. French and Dutch cruisers are more like the traditional lines of New Zealand fishing boats but have severe interior space limits due to compromised air draft restrictions. There has been a spate of new built boats on the Dutch 'Tajlik' theme, but these can be very expensive. The Pioneer 39 design had to meet the requirements of the average couple cruising, have excellent handling capabilities and most importantly, be safe and seaworthy for short coastal hops at the end of the canal network, opening up vast cruising grounds in the Black Sea, Northern Lakes and the Mediterranean. The interior has to be comfortable and ergonomically designed for good social interacting. Large viewing windows from the saloon as well as good deck space both fore and aft are needed to allow families to sit and look ahead, enjoying the scenery, rather than be stuck all the way aft like the traditional Canal Boats. Canal boating is quite different to coastal or offshore cruising in that the scenery, people, buildings and landscape change constantly, minute by minute, so it is important to have a boat that can take advantage of both the social and visual aspect that makes this form of travel so popular. Easy access from the sides of the vessel is also important for when exploring all the towns and villages that will be traveled through.



We managed all of these features with the Pioneer 39, but also offered the advantages of a protected prop and steering gear, and her hull design is very efficient at low speed, pushing less water ahead of her and making maneuvering in the canals easier.

For those interested, the options in Europe are endless. The pleasures of the French canals are well documented and well traveled, but we have had clients mention canals connecting Hamburg and Berlin, for instance. That in itself is a little industrial, however north of this there is a navigable network of over 100 lakes, with no roads and it would be possible to lose oneself up in that area for months at a time. From Berlin, Russia awaits and for the adventurous, the grand loop which travels up the Rhine, then into the Main Danube canal and down the Danube River all the way to the Black Sea. This route takes you through the Czech Republic and Romania before entering the



Black Sea, where a Coastal hop along the coast through into Istanbul, the Croatian coast, the Greek Islands, Italy and then back into the canal system in Marseilles. That is probably the ultimate retirement journey for a couple, which could take at least three years of cruising, at a very cheap cost, with the most stunning of scenery. And the Pioneer 39, would be ideally suited for such an adventure.

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Page 3

GRETEL-II REFIT

As the worlds economy continues through its current down turn, plenty of clients are starting to look at re-fits and upgrades as opposed to new design and builds. This could involve new interiors, appendages, system upgrades or deck layouts. The key to mak-



ing these refit projects successful is bringing together a Team that can work well together. This team would include gualified trades people in all aspects of the refit as well as a Yacht Designer who can see the big picture of what is required, and knowledge on what every decision made will have on the overall trim, stability and performance of the vessel. Bringing together the Team should be a Project Manager who can keep costs down, and communication

up with Owner and all involved. These jobs can be small or large, but occasionally, we get iconic projects cross our desk and one of those recent ones was the historic 12-meter, 'Gretel-2' in which her owner wanted no expense spared to bring her up to mint condition.

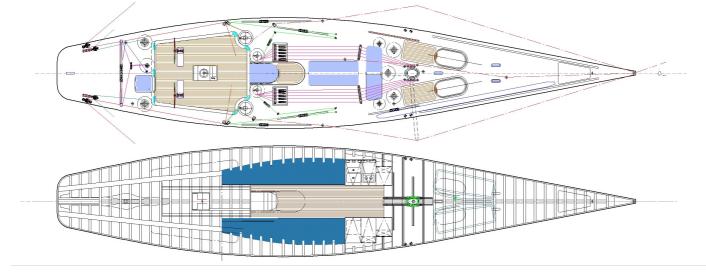
In 1970, Australia's challenger for the America's Cup went up against the aluminium, Sparkman & Stephens designed 'Intrepid' to contest the 'Cup' that had not been won by a Challenger since it was first won by the Americans in 1851. Australia's weapon of choice was the Alan Payne designed 'Gretel-2' which, as it turned out, was the last wooden International 12meter to contest the America's Cup. The two yachts were closely matched, but the experienced team on 'Intrepid' won the Cup 4-1. 'Gretel-2' returned home but continued to chal-



lenge for the rights to race the Americans over the next two Cups before retiring to fleet racing and charter work.

Over the following years, 'Gretel-2' fell into a state of disrepair and it wasn't until Australian, Michael Maxwell took over in 2005, that this icon of Australian Yachting began to be re-born.

Shipped to New Zealand for the major restoration, a team of shipwrights and cabinetmakers under the management of boatbuilder Phil Bish, oversaw the restoration, with Tom Warren Project Managing the process on behalf of the owner.



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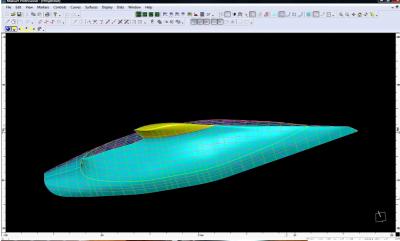




Page 4

GRETEL II REFIT (continued)

Dibley Marine were brought in to oversee the design and re-design as well as making sure that weights and stability were monitored throughout the process.



Keeping to the spirit and the history of the yacht, we re-designed the interior and deck layout to cater for her new owners wish to sail this yacht both inshore and offshore. These 12-metres were designed for shifty light conditions in Newport, Rhode Island, and not for offshore sailing. The interior was stripped and woodwork replaced where required. All the metal work, including the intricate metal space frame that incorporated the mast base and chainplates, were replaced and strengthened to cater for the new Matrix (now Hall Spars-NZ) built Mast, Boom and Rigging. In her original Americas Cup layout, there was practically nothing below in the form of accommodation or comfort, so we designed seating, berths, galley and storage without losing the original beauty of the wood work that really makes this interior stand out.

A new teak Deck and Cockpit layout was the foundation for the modern sailing systems that were employed. Multiple skylights were designed into the



deck to maximise light below, with the main skylight able to be fully opened when the owner wished to entertain down below while in port.

During her Cup debut in 1970, 'Gretel-2' had numerous innovations that were new to the Americas Cup scene, which included twin steering wheels in the cockpit allowing the helmsman to keep an eye on trim easily to windward and leeward. Keeping these original ideas alive, we redesigned these innovations to cater for her new modern sailing systems. She also had to be easily sailed by a reduced number of crew, so all sailing systems had to be run from the confines of the cockpit.

Last year saw her launched in Auckland and sitting beautifully on her lines at perfect trim. After a few sea trials, she sailed across the Tasman Sea under her own means to her new berth in Sydney Harbour. Earlier this year, she sailed down to Hobart in an amazing three and a half days where she took part in the '2011 Australian Wooden Boat Festival' where she became a favorite to the thousands that visited.



New Zealand's involvement in the re-fit of this historic yacht is a fitting reminder of the talent that we have here in the marine industry. The NZ Marine Industry is slowly re-shaping itself to cater for the growth in the re-fit market, and Dibley Marine Ltd, have the expertise, tradespeople and infrastructure to cater for the needs and requirements of any discerning yacht owner, regardless of the size of the project.



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Issue 4, December 2011



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www.dibleymarine.com

Sailing Links and News

2-Illustrate. www.2illustrate.com

> Crew.Org.nz crew.org.nz

Westlawn Institute of Marine Technology www.westlawn.edu

Royal New Zealand Yacht Squadron www.rnzys.org.nz

> Yacht Yakka yachtyakka.co.nz

Scuttlebutt Europe www.scuttlebutteurope.com

Sailing Anarchy www.sailinganarchy.com

Yacht Forum www.yachtforums.com

New Zealand Marine www.nzmarine.com

Pier 21 Marine Centre www.pier21.co.nz

53

53

53

53



Dibley Marine Design Studio, Westhaven Marina, Auckland, NZ , July, 2011

From the Design Office:

With the close of 2011, Dibley Marine can look back with some great memories. To name just a few highlights: The beginning of the year saw our 55-foot 'Marilyn' launch and sail up to Fiji for a few months of fantastic sailing and cruising. Our appendage work alongside Frank Pong, saw him and his team take out the 2011 China Cup on Line and IRC in his 75-foot Racing Yacht 'Jelik 2'. Further appendage successes saw Roger Rushton's 'Frenzy', and Mike Elley's 'Nosaka' take 2nd and 3rd on line and handicap in Division 2 of the annual 120 nm Coastal Classic Yacht Race to the Bay of Islands. Our radio controlled yachts, the DM3-RM Marblehead and the DM1 and DM2 International-One-Meter's continue to dominate. Our design work for Mitchells Marine Group has some exciting projects that will be showcased in 2012, and the enquiries continue to pour in.

Thank you to the team of Nina Heatley, Brad Heald & Peter Whiteley, who do such great work behind the scenes, and a big thank you to all our other sub-contractors and clients who we have enjoyed working with throughout the year. Merry Christmas and happy boating to all. Kevin Dibley

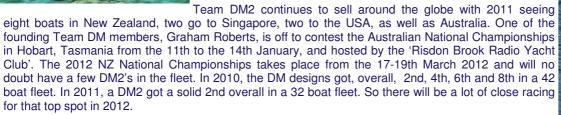
DIBLEY DESIGN UPDATES

DIBLEY DESIGNED MARBLEHEAD WINS 'NZ NATIONAL CHAMPIONSHIPS', THREE YEARS IN A ROW:

Paul Goddard, racing his DM3-RM (photo on left), took out the 2011 Championships convincingly, adding to his 2009 and 2010 wins. Nature pulled out all stops to make it difficult with strong winds on the first day forcing everyone into the smaller C-Rigs. The next days racing was drifting conditions so the large A-rigs came out to play. The

Marblehead is an international box rule which allows designers a fair amount of freedom in the hull shapes and appendage designs. The next Marblehead World Championships will be held in France in October 2012.

DIBLEY DESIGNED DM2's UPATE:



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Page 5

